RF ONE

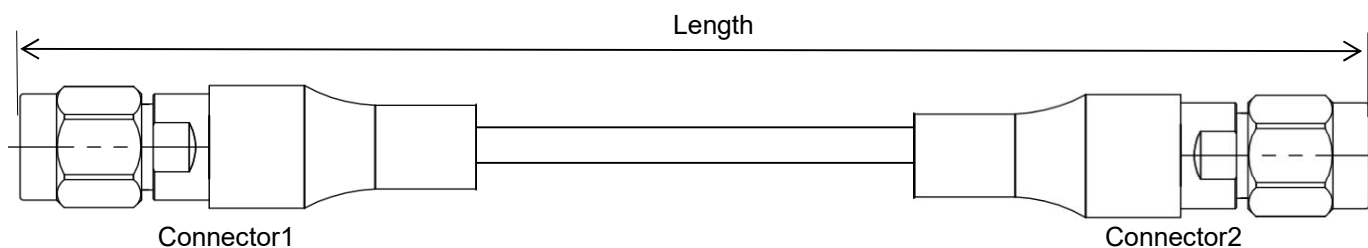## Low Loss Flexible Cable Replacing Semi-flexible Cable Assembly, Using SP280

DC-18 GHz, SMA Male to SMA Male   SP280-SMAMSMAM-L(L:Length)
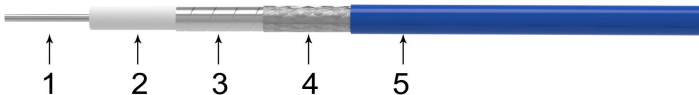

Length

Connector1

Connector2

· Length can be in meter or in inch etc, e.g, SP280-SMAMSMAM-1M. Standard length tolerance: ±1.5%. Custom lengths and other connector types available.

· Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

Connector 1	SMA male	Connector 2	SMA male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated brass	Center Contact	Gold plated brass
Cable Type	SP280		

Cable Construction

No.	Construction	Size（mm）	Materials
1	Center Conductor	0.51	Silver plated copper
2	Dielectric	1.63	Solid PTFE
3	Outer Conductor	1.79	Silver plated copper tape wrap
4	Outer Shield	2.16	Silver plated copper wire braid
5	Jacket	2.80	FEP

Electrical

Frequency	DC-18 GHz
Impedance	50 Ω
VSWR Max	1.3
IL Max(1 meter assembly)	1.5dB
Velocity of Propagation	70%

Mechanical & Environmental

Min.Bending Radius Static	14mm
Min. Bending Radius Repeated	28mm
Temperature(Operation)	-50～85 ℃
Temperature(Storage)	-60～85 ℃

Bulk Cable Attenuation(Typical@25℃) & Power(VSWR=1.0; 40℃; Sea level)

Frequency MHz	300	1000	2000	4000	6000	8000	10000	12000	14000	18000	26500	40000
dB/100 Meter	37.0	69.3	100.3	146.5	183.7	216.4	246.1	273.7	299.7	348.2	440.8	570.9
Avg.Power kW	0.187	0.100	0.069	0.047	0.038	0.032	0.028	0.025	0.023	0.020	0.016	0.012
Attenuation at any frequency＝[2.066929×SQRT(FMHz)]+[0.003937×FMHz]												

Notes:

1) The above attenuation refers to typical loss of cable only, max loss is 1.1 times of typical loss. Insertion loss per connector is estimated as 0.04dB x SQRT Freq(GHz).

2) Power handling values are calculated based on cable properties. Power handling will vary based on connector type and actual VSWR of the cable assembly.

Typical Test Data (SP280-SMAMSMAM-1M)